



Confirmation of Product Type Approval

Company Name: ROXTEC INTERNATIONAL AB

Address: ROMBVAGEN 2 LYCKEBY SE 371 65 Sweden

Product: Fire Stop System

Model(s): Roxtec RS Seals, for Jet fire steel divisions (Bulkhead/Deck)

Endorsements:

| Certificate Type | Certificate Number | Issue Date | Expiry Date |
|---------------------------------|--------------------|-------------|-------------|
| Product Design Assessment (PDA) | 21-2132106-PDA | 12-AUG-2021 | 11-AUG-2026 |
| Manufacturing Assessment (MA) | 24-6227546 | 25-JAN-2024 | 08-JAN-2029 |
| Product Quality Assurance (PQA) | NA | NA | NA |

Tier

3 - Type Approved, unit certification not required

Intended Service

Structural steel jet fire protection system: pipe penetration sealing system in Jet fire resisting bulkhead and deck divisions for offshore applications only.

Description

"Roxtec pipe sealing system with multidiameter technology" composed of steel sleeves (welded or bolted) with RS- type (EMC versions included) halogen free rubber sealings. Frame size 23-400 for steel pipe services, and filled with Roxtec halogen free insert modules, mounted in steel bulkheads and decks.

Ratings

Jet Fire rating J30: RS-, Roxtec modules installed back to back; between the ends the space between the pipe and the flange filled with 100mm ceramic fibre;

Pipes - Maximum pipe outside diameter up to 323 mm.

Watertight test pressure 6 bar g. (except bolted versions test pressure at 5 bar g.);

Gastight test pressures 4 bar g. (except bolted versions test pressure at 2.5 bar g.).

Service Restrictions

1) Not for use in tank boundaries.

2) Applications in each case to be approved by ABS at the design stage.

3) Unit Certification is not required for this product. If the manufacturer or purchaser's request an ABS Certificate for compliance with a specification or standard, the specification or standard, including

inspection standards and tolerances, must be clearly defined.

Comments

- 1) All seal types should be installed in accordance with manufacturer's ABS approved installation drawing number S1023312 rev A.
- 2) Insulation material is to be H class approved type and properly installed to the satisfaction of the Surveyors.
- 3) Although the jet fire resistance test has been designed to reproduce conditions similar to those found in large-scale jet fires resulting from realistic releases of hydrocarbons, it cannot guarantee a specific degree of protection from the myriad of possible jet fires. The Jet Fire Resistance Test, or indeed large-scale demonstrations, cannot therefore be used to confer a universal fire resistance rating for a specified time in the way that a standard furnace test confers a hydrocarbon rating. Hence this test does not give a rating analogous to the "H" rating derived from the hydrocarbon fire resistance test as detailed in ISO 834. This test is not intended to replace the hydrocarbon fire resistance test but is seen as a complementary test.
- 4) Although the method specified for jet-fire resistance test has been designed to simulate some of the conditions which occur in an actual jet fire, it cannot reproduce them all exactly. The results of this test do not guarantee safety but may be used as elements of a fire risk assessment for structures or plant. This should also take into account all the other factors which are pertinent to an assessment of the fire hazard for a particular end use.
- 5) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes, Drawings and Documentation

- 1) Sintef test report no. NBL F10106 dated 13 October 2010.
- 2) SINTEF/SP assessment report no. F15 20119-1 dated 29 January 2015.
- 3) Drawing number S1023312 rev A.
- 4) Drawing No. Roxtec letter 2021-05-20. Declaration of Conformity.

Term of Validity

This Product Design Assessment (PDA) Certificate remains valid until 11/Aug/2026 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

ABS Rules

2021 Rules for Offshore Units and Structures: 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2021 Rules for Building and Classing Mobile Offshore Drilling Units: 4-2-1/11.15, 5-1-1/3.5, 5-1-1/ 5.17 & 5-1-1/5.21

2021 Rules for Building and Classing Facilities on Offshore Installations: 3-8/9.13, 4-8/9.13

International Standards

ISO 22899-1: 2021 "Determination of the resistance to jet fires of passive fire protection materials"

EU-MED Standards

NA

National Standards

NA

Government Standards

NA

Other Standards

NA



A handwritten signature in dark ink, appearing to read "Joseph W. Wilson".

Corporate ABS Programs
American Bureau of Shipping
Print Date and Time: 12-Feb-2024 9:15

ABS has used due diligence in the preparation of this certificate, and it represents the information on the product in the ABS Records as of the date and time the certificate is printed.

If the Rules and/or standards used in the PDA evaluation are revised or if there is a design modification (whichever occurs first), a PDA revalidation may be necessary.

The continued validity of the MA is dependent on completion of satisfactory audits as required by the ABS Rules. The validity of both PDA and MA entitles the product to receive a **Confirmation of Product Type Approval**.

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or prior to the effective date of the ABS Rules and standards applied at the time of PDA issuance. ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. The manufacturer is responsible to maintain compliance with all specifications applicable to the product design assessment. Unless specifically indicated in the description of the product, certification under type approval does not waive requirements for witnessed inspection or additional survey for product use on a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.